

## REVISION OF THE AMYCTERIDES.

PART V. *Molochtus* and *Cubicorrhynchus*.

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## MOLOCHTUS Pascoe.

Pascoe, Journ. Linn. Soc., xii., 1873, p.18.

Type of genus, *M. gagates* Pascoe.

Large, or very large species. Head convex, separated from rostrum by a transverse impression; supraorbital crests in the form either of a raised ridge, or of two, dentiform tubercles. Rostrum deeply concave above, the lateral margins strongly raised. Prothorax rotundate or subquadrate, with two, small spicules at anterior and two at posterior lateral angles, these more marked in the female; disc closely granulate. Elytra broad, flattened more or less on disc, strongly declivous; striate, the punctures often transverse, crossing interstices as a series of transverse wrinkles; interstices granulate or tuberculate. Under-surface in the male concave at base and granulate, at least at base of abdomen; in the female, convex, non-granulate. Anterior coxæ contiguous. Legs stout. Tarsi broad, with claw-joint flattened above, broad and parallel-sided in greater part of its length.

The position of *Molochtus*, in relation to other genera, has been variously regarded by different entomologists. In describing the genus, Pascoe referred it to the neighbourhood of *Talaurinus*, at the same time noting that the type-species (*M. gagates*) was not very unlike *Cubicorrhynchus maximus* MacL. Sloane (Trans. Roy. Soc. South Aust., 1893, p.232), in describing *Acantholophus granulatus*, stated that it seemed to him the affinities of *Molochtus* were more to *Cubicorrhynchus* and *Acantholophus*. Lea (Die Fauna Südwest-Australiens, ii., 1909, p.222) regarded *C. maximus* as certainly congeneric with *M. gagates*, and placed that species under *Cubicorrhynchus*, thus deleting the genus *Molochtus* altogether.

To my mind, though unquestionably related to *Cubicorrhynchus*, the genus *Molochtus*, as exemplified by *M. gagates*, seems worthy to be maintained as distinct. Also, I do not regard *C. maximus* as congeneric with *M. gagates*; it seems to me unquestionably congeneric with *Ac. granulatus* and *Ac. Blackburni* (= *Ac. simplex* Blackb.), though the position of these three species is open to question. The head, in all the species of *Molochtus*, is very strongly convex, the intercrystal portion being feebly transversely concave, and separated from the rest of the head by a more or less distinct impression; the crests are represented either by a feebly elevated ridge, or by two, small, dentiform projections. The rostrum does not differ materially from that of *Ac. (?) maximus*, but is decidedly more excavate than that of *Cubicorrhynchus*, with the lateral margins more strongly raised. The prothorax is quadrate or rotundate, with two, small denticles in the region of the antero-lateral angle, and two more near the postero-lateral angle. In the male, these, or some of them, may be obsolete, but they are always well marked in the female, which also has the prothorax invariably narrower. The granules on the thorax are always more or less flattened, and closely set. The elytral sculpture is fairly characteristic, though that of *Ac. (?) maximus* is not unlike; the interstices are granulate, the granules being generally depressed, though, in some forms of *M. gagates*, they become conical tubercles posteriorly and laterally; they are separated by more or less distinct, transverse impressions, often extending over two or more interstices; the whole sculpture is often confused, and difficult to describe. The metasternum and ventral segments, at any rate the basal two, are strongly granulate, a feature which I have not noted in *Cubicorrhynchus*. The tarsal structure, however, is the feature to which I attach most importance in separating the two genera. In *Molochtus*, the fourth or clawjoint is broad, flattened above, with subparallel sides throughout the greater portion of its length, and not narrowed till quite close to the base. In *Acantholophus* and *Cubicorrhynchus*, the clawjoint is not flattened above, and is gradually widened from base to near apex.

Two species of *Molochtus* have, in past years, been described,



I have specimens of the typical form from Champion Bay and Mullewa; and of the more strongly tuberculate form from Onslow, Murchison River, and Central Australia

MOLOCHTUS TIBIALIS Sloane.

Sloane, Trans. Roy. Soc. S. Aust., xvi., 1893, p.229; Lea, *ibid.*, 1903, p.113.

In his description, Sloane has given a number of characters differentiating *M. tibialis* from *M. gagates* Pasc.; Lea, however, has pointed out that these differences will not hold, and, after examination of a number of specimens, I find that they will not, without modification. The differences in the head, rostrum, and prothorax do not appear to be constant; and I do not think that they can be made much use of in separating the species. The elytral sculpture varies considerably; some of the specimens, including the types, have the sculpture flatter and more obliterate than in others, which approach closely to the less strongly sculptured form of *M. gagates* (see under that species); but I have never seen specimens of *M. tibialis* with sculpture approaching that of the more strongly tuberculate form of *M. gagates*. There is, however, another difference which will enable the males of the two species to be readily determined, and that is the leg-structure. In *M. tibialis*, the tibiæ are longer, and the anterior tibia has a subapical emargination or notch on the undersurface. The females of *M. tibialis* have also longer tibiæ than the females of *M. gagates*, but the difference is only really apparent when specimens of the two species are compared together.

The specimens of *M. tibialis* in my possession include, in all probability, the types; the female type is marked as such, but there is also a male from Fraser Range (the type-locality) which agrees exactly with Sloane's description and measurements, whereas none of the South Australian Museum specimens agree exactly with Sloane's measurements.

The species has a wide range, from Central Australia to the coast-board of Western Australia in the neighbourhood (at least) of the Ashburton River.

## MOLOCHTUS HERCULES Ferg.

Trans. R. Soc. S. Aust., xxxix, p.74, 1915.

*Hab.*—W. A.: Kookynie, Kalgoorlie, Cue.—Central Australia: Hermannsburg.

## MOLOCHTUS ROTUNDICOLLIS, n.sp.

♂. Size comparatively small; elongate-ovate. Black; without clothing; setæ light brown, for the most part absent from the upper surface.

Head separated from rostrum above by a deep V-shaped impression, becoming indistinct towards the sides; strongly convex, the intercrystal portion separated from the rest of the head by a transverse impression; the extreme posterior portion finely transversely strigulose, elsewhere finely and irregularly reticulate, intercrystal puncto-granulate; supraorbital crests composed of two, small, dentiform tubercles, the posterior slightly the larger, conjoined at base. Rostrum widely and deeply concave above; the lateral margins raised, curved inwards and broadened at base; convex in profile, anterior end bluntly acuminate, less so than in *M. hercules*; upper surface rather coarsely punctate. Prothorax (5 × 6 mm.) broad, strongly rounded on sides, the anterior lateral denticles hardly traceable, the postero-lateral ones small, but evident; anterior margin without ocular lobes; disc widely depressed in centre, with a feeble, deeper, median impression traceable anteriorly; closely set with flattened granules, separated by fine, impressed lines arranged in a concentric manner around each half of the disc, the central impressions on each side running transversely; sides granulate above, the granules becoming smaller and fewer towards the coxæ; with impressed lines arranged concentrically with those on disc. Elytra (10 × 7 mm.) broad, flattened on disc, sides rather strongly rounded at base, more gradually to apex; apex not acuminate; base not emarginate, humeral angles rounded; striæ narrow, punctures small, the ridges between not granulate; interstices not raised, with small, obscure granules more definite on declivity and towards sides. Undersurface feebly concave over meta-

sternum and base of abdomen, all the segments granulate, the granules largest on the second ventral segment, smallest on the metasternum, on the fifth interstice coalescing near apex to form a series of transverse strigæ. Tibiæ simple, with a row of granules on undersurface; tarsi and claw-joints as in the genus.

♀. Differs from the male in being more ovate. Head more obsoletely punctate; rostrum with lateral margins less widened at base. Prothorax ( $4 \times 5$  mm.) narrower, not widely dilatate, less strongly rounded on sides; disc not so widely depressed, but with a deeper, median, impressed line; granules less flattened, with the concentric impressions less definite; lateral margins with denticles more strongly developed. Elytra ( $11 \times 7$  mm.) rather longer than in the male, apex not acuminate, base with shoulders rounded; sculpture as in the male. Undersurface more convex, basal segments slightly flattened, not granulate, but with a somewhat shagreened appearance; apical segment rather feebly, transversely rugulose. *Dimensions*: ♂,  $16 \times 7$  mm; ♀,  $16 \times 7$  mm.

*Hab.*—W.A.: Onslow, Ashburton River, Carnarvon (ex C. French).

Type in Coll. Ferguson; cotypes in National Museum, Melbourne.

This species is allied to *M. hercules* Ferg., but differs in the strongly rounded prothorax, in the non-acuminate elytra, with the basal angles rounded, and in the more granulate undersurface, as well as in its smaller size.

A second male before me has the prothorax less strongly dilatate; the head is also more obsoletely punctured.

#### CUBICORRHYNCHUS Lacordaire.

Lacordaire, Gen. Coleopt., vi., p.314.

Size small to moderate, never very large. Head convex, separated from rostrum by a transverse impression; supraocular crests present, simple. Rostrum short, wide, flat or feebly depressed above, the lateral margins not strongly raised. Scape long; second joint of funicle generally longer than first. Pro-

thorax rounded or dentate at sides; subapical and basal transverse impressions well marked, the latter often hidden from above; disc granulate. Elytra suboval, basal angles generally strongly rounded; disc regularly striate-punctate; interstices granulate, occasionally showing extraordinary sexual characters. Undersurface generally depressed at base of abdomen in the male, convex in the female. Femora and tibiæ showing, in many species, marked sexual characters; tarsi with clawjoint not flattened as in *Molochtus*.

The genus *Cubicorrhynchus* was described by Lacordaire for a group of species of which he knew of no described example, although he alluded to several known under MS.-names, as probably belonging to the genus. His generic diagnosis leaves it quite clear, however, to what group of species he intended the name to belong; and Macleay has rightly claimed the name for those species which now bear it.

This genus, and *Molochtus*, are the first of a section of the Amycterides which seems, to me, distinct from the *Psalidura-Talaurinus-Sclerorinus* complex; and which contains two large genera, *Cubicorrhynchus* and *Acantholophus*, as well as a number of smaller ones. I do not propose at present to define the limits and characters of the different sections of the family; as such will require much further study. I merely indicate here the existence of these sections, in passing from one to another.

The essential characters of *Cubicorrhynchus*, as distinguishing it from its immediate allies, lie, to my mind, in the rostral structure. In *Cubicorrhynchus*, the rostrum is short and broad, and the upper surface is at most feebly concave, the lateral margins not being raised; although, in profile, they are more or less convex. The rostrum is separated from the head, above, by a transverse, linear impression; in a few species, this line turns backwards along the inner sides of the crests. The presence of supraorbital crests is constant, although these vary somewhat in direction and development. There are also two small granules present in most species, although in some they are absent; and they are present in a few species at present referred to *Acantholophus*. The prothorax varies in different

species; in the most typical examples of the genus, the prothorax is strongly and evenly rounded on the sides, whereas in others it is strongly dentate, this form reaching its highest development in *C. spinicollis*, which has been regarded by some authorities as being generically distinct. With this, I do not agree, as the transition between the various species of *Cubicorrhynchus* is too gradual to admit of a violent separation of this species; moreover, in the females of the species with rounder prothorax, the sides are distinctly ridged as in the dentate species. The presence of a subapical and a basal, transverse impression is constant, while the median line is, as a rule, impressed. The elytra are, as a rule, subovate, with the humeral angles strongly rounded, and strongly declivous posteriorly. The disc is regularly striate, the punctures open, and rather indefinite, never very large; the interstices are, as a rule, granulate, though the granules may be obsolescent on the disc; they are situate rather to one side of the interstice, in some cases simulating intrastrial granules. Some of the species, in addition, present extraordinary features, in the development of spines or tubercles. The under-surface is, in the male, gently concave over the metasternum and basal, ventral segments, whereas, in the female, the under-surface is convex. The front coxæ are, in a few species, separated; in the others, they are contiguous. The legs, and in particular the posterior tibiæ, show extraordinary features of specific importance. These are present in the male only, and it is impossible, in many cases, to distinguish the females from each other, although the males may be readily identified.

Of the *Amycterides* described previously to the institution of the genus, only three can be referred to it.

*C. Bohemani* Bohem., (Schönh., Gen. Curc., vii. (1), 1843) is a well known Western Australian species; while *C. crenicollis* Waterh., (Trans. Ent. Soc., 1854), and *C. Dohrni* Waterh., (*l.c.*) are also Western Australian species, and readily identified from their descriptions.

The name *C. morosus* has been in use for a species of *Cubicorrhynchus*, but incorrectly so. I have seen the type of *Amycterus morosus*, and it is a *Sclerorinus*; although the species which

Boheman and later entomologists identified as *A. morosus* Boisd., certainly is a *Cubicorrhynchus*.

Macleay (Trans. Ent. Soc. N. S. Wales, 1865) added five new species to the genus. Of these, I would exclude *C. maximus* from the genus, and refer it provisionally to *Acantholophus*; while *C. sepidioides* is regarded by Lea as a synonym of *C. valcaratus*. The other species are distinct, though *C. piceo-setosus* should possibly be regarded as a variety only of *C. maculatus*. Subsequently, Macleay (*op. cit.*, 1866) described three additional species, *C. angularis*, *C. spinicollis*, and *C. eximius*. The first of these is a synonym of *C. Bohemani*, while *C. eximius* has been referred by Lea to *Acantholophus*.

Pascoe\* described two species, *C. cichlodes* and *C. sterilis*. Sloane has made the former of these the type of a new genus, *Notonophes*.

Blackburn was the next entomologist to add any further species to the genus; the descriptions of these are distributed over a number of papers. *C. Mussoni*† is a very distinct species; as is also *C. taurus*.‡ *C. dilatiticeps*|| is not a species of *Cubicorrhynchus*, and I have already referred it to *Notonophes*. *C. tortipes*§ is a synonym of *C. Bohemani* Bohem. *Hyborrhynchus aurigena*¶ is a species of *Cubicorrhynchus*, and is closely allied to *C. spinicollis* Macl.

Sloane\*\* described two species, *C. occultus* and *C. modestus*. I have seen the types of these, and they are distinct species; unfortunately the type of *C. modestus* is a female.

Lea has added three species to the genus, besides commenting on the types of a number of Macleay's species. *C. valgus*†† is a very curious species, but may prove to be the male of *C. modestus*;

\* Journ. Linn. Soc., xii., 1873.

† Proc. Linn. Soc. N. S. Wales, 1892, p.124.

‡ Trans. R. Soc. S. Aust., 1895, p.220.

|| Report Horn Exped., 1896, p.293.

§ Trans. R. Soc. S. Aust., 1897, p.96.

¶ *L.c.*, 1899, p.89.

\*\* Trans. R. Soc. S. Aust., 1893.

†† Die Fauna Südwest-Australiens, p.221.

*C. maculicollis*\* is closely allied to *C. maculatus* Macl.; while *C. globicollis*† is a thoroughly distinct species.

I have recently described six new species, *C. strigicollis*, *C. quadraticollis*, *C. substrigosus*, *C. curripes*, *C. aureomaculatus*, and *C. rectipes*;‡ *C. quadraticollis* now proves, however, to be synonymous with *C. sterilis* Pasc.

In the present paper, seven new species are described, which, with the elimination of synonyms and species removed to other genera, make a total of twenty-eight species in the genus.

*Geographical Distribution.*—The genus is almost universally distributed in Australia, but is unrecorded from Tasmania. I have never met with it in the Sydney district or on the Blue Mountains; it seems absent from the entire area of the Hawkesbury Sandstone formation. On the western slopes and inland plains, specimens of one or more species of *Cubicorrhynchus* are plentiful, and are, indeed, very characteristic of the inland areas. In South and Western Australia, it seems equally common. The genus has not been recorded, however, from North Australia or North Queensland, though it probably occurs in the inland portions, but not in the jungle-areas. The dentate forms are almost exclusively western.

*Table of Species.*

- 1(8).Anterior coxæ separated.
- 2(5).Anterior femora bent almost at right angles.
- 3(4).Third elytral interstice with a large, backwardly directed spine at declivity; fifth interstice with a row of outwardly directed, spinose tubercles..... *C. Dohrni* Waterh.
- 4(3).Third interstice without such a tubercle; fifth interstice with a row of erect tubercles, extending down declivity .....  
..... *C. Bohemani* Bohem.
- 5(2).Anterior femora strongly, but more evenly curved.
- 6(7).Size moderately large; head granulate; posterior tibiæ less strongly bent than in *C. valgus*..... *C. occultus* Sl.
- 7(6).Size small; head not granulate; posterior tibiæ with lower end bent forwards, almost at right angles..... *C. valgus* Lea.
- 8(1).Anterior coxæ contiguous.

\* Deutsch. Ent. Zeitschr., 1910, p.163.

† Mém. Soc. Ent. Belgique, 1910, p.84.

‡ Trans. R. Soc. S. Aust., xxxix., pp.76-83, 1915.



- 33(32). Posterior tibiae straight ..... *C. rectipes* Ferg.  
 34(31). Elytral granules more or less obscured by clothing.  
 35(36). Posterior tibiae strongly curved..... *C. curvipes* Ferg.  
 36(35). Posterior tibiae much less strongly curved..... *C. crenicollis* Waterh.  
 37(24). Lateral margins not strongly dentate.  
 38(39). With a granulate ridge posteriorly, and two minute spicules anteriorly; granules on disc remotely separated.... *C. sparsus*, n.sp.  
 39(38). With a posterior, granulate ridge only; granules on disc closely set..... *C. minor*, n.sp.  
 40(23). Supraorbital crests laid back, with the inner surface directed forwards.  
 41(42). Granules on prothorax distinct..... *C. auriculatus*, n.sp.  
 42(41). Granules on prothorax very small, concealed by clothing, almost obsolescent..... *C. Mussoni* Blackb.

#### Notes on the Table.

The table has, of necessity, been drawn up from males only, consequently *C. molestus* has been omitted.

*C. maculicollis* Lea, may be distinct from *C. maculatus* Macl., but I am not prepared to tabulate the differences.

#### CUBICORRHYNCHUS BOHEMANI Bohem.

Boheman, Schönh., Gen. Curc. vii., (1), 1843, p.83; *C. angularis* Macl., Trans. Ent. Soc. N. S. Wales, 1866, p.331; *C. tortipes* Blackb., Trans. Roy. Soc. S. Aust., 1897, p.96.

♂. Size large. Head with scattered granules; supraorbital crests small, little projecting. Prothorax (4.5 × 5 mm.) strongly rounded on sides; median line impressed, carinate in depression; closely set with regular, rounded granules. Elytra (9.5 × 6 mm.) with interstices granulate; on the third and fourth, the granules more strongly raised and subacute posteriorly; fifth interstice with a row of strong tuberculiform granules, largest at edge of declivity and extending halfway down declivity. Anterior coxæ separated; anterior femora with a narrow basal pedicle, then bent forwards almost at right angles; anterior and posterior tibiae strongly falciform.

♀. More ovate; third and fifth elytral interstices with granules slightly more conspicuous; ventral surface convex; legs more feebly curved. *Dimensions*: ♂, 14 × 6 mm.; ♀, 16 × 7.5 mm.

*Hab.* — Western Australia : King George Sound, Swan River, Kellerberrin, Cue.

The male of this well known species can be readily recognised by the projection of the fifth interstice. The bent front femora are also present in *C. Dohrni*; in the other species, the anterior femora are more evenly and less strongly curved. *C. Dohrni* differs, *inter alia*, in the very different elytral sculpture. *C. occultus* Sloane, is the species closest in general appearance, but has the fifth interstice much less strongly granulate, and the anterior femora and the tibiæ less strongly curved. *C. valgus* and *C. modestus* are considerably smaller species.

The female is distinguished from the female of *C. Dohrni* by the granulate head, and by the absence of the projections at the declivity; from the female of *C. occultus*, the present species differs principally in its larger size.

#### CUBICORRHYNCHUS DOHRNI Waterh.

G. R. Waterhouse, Trans. Ent. Soc., 1854, p.5.

♂. Large. Head convex, slightly depressed in front, with two small granules on forehead, lightly strigulose; supraorbital crests short, very little prominent. Rostrum little excavate above; external margins slightly raised. Prothorax (4.5 × 5.5 mm.) rotundate, with a small spicule anterior to middle, and one at postero-lateral angle; moderately closely set with small, round, slightly umbilicate, discrete granules; sides only granulate above. Elytra (10 × 7 mm.) suboval, the upper surface almost flat from side to side, vertically declivous behind; base not emarginate; disc with rows of small punctures, the striæ rather narrow; interstices broad, with small granules, third with slightly more conspicuous granules, the last two or three larger, and the last acutely conical; with a large, backwardly-projecting tubercle, with the apex upturned, extending over the first three interstices, and situated on the edge of the declivity; fifth interstice with a row of outwardly-projecting tubercles, smallest near base, becoming progressively larger, acutely conical and extending to the edge of the declivity, thence turning inwards across fourth interstice; seventh interstice with a row of three spinose tuber-

cles at base, followed by a row of small granules. Prosternum with an obtuse tubercle in front of coxæ; ventral segments subnitid, with fine subobsolete punctures. Anterior coxæ separated; anterior femora strongly bent; anterior tibiæ moderately strongly falciform, posterior tibiæ strongly curved forwards in posterior third, intermediate tibiæ with a moderately definite, subapical notch.

♀. Elytra more convex; third interstice with the granules slightly more conspicuous towards the declivity, curved inwards and ending in a short, acute spine; fifth interstice with the granules somewhat larger and more conspicuous than on the other interstices, and larger posteriorly; seventh with a row of three small tubercles at shoulder; prosternal tubercles smaller than in the male; abdomen convex, with scattered punctures; anterior coxæ separated; anterior tibiæ almost straight; intermediate tibiæ not notched; posterior tibiæ less strongly curved than in the male. *Dimensions*: ♂, 17 × 7 mm.; ♀, 16 × 7 mm.

*Hab.*—Western Australia: Perth.

I have given a full description of the male, as, so far as I know, only the original description, which appears to have been based on a female, has been published. I know of no other species with which this one can be compared. The spines, which are outwardly-projecting, are very different from the tuberculiform granules on *C. Bohemani*, and do not extend down the declivity, but turn inwards across the base to the large tubercle at the end of the third interstice. The fourth interstice thus bears a spine. In specimens from Beverley, W.A., the spines are smaller near the base, and the spine on the fourth is represented by a small acute granule, the row of spines thus appearing interrupted. The tubercles at the base of the seventh interstice are also smaller. The female also differs in having the apical spine hardly larger than the other granules. Possibly the form is distinct, but I regard it as a variety only, as the species seems to vary a good deal in the size of the spines.

A specimen marked "*A. Dohrni* Wat. var. B" was sent to me for examination by Mr. Blair, of the British Museum. It was a large, obese female, with the tubercles larger than usual.

## CUBICORRHYNCHUS OCCULTUS Sloane.

Sloane, Trans. Roy. Soc. S. Aust., 1893, p.232.

*Hab.*—Central Australia: Fraser Range.—W.A.: Kalgoorlie, Coolgardie, Ankertell.

This species is most nearly allied to *C. Bohemani*, from which species it differs in its smaller size, much less strongly granulate fifth interstice, and less strongly curved anterior femora and tibiæ (these structures, however, strongly curved compared with the majority of other species).

## CUBICORRHYNCHUS MODESTUS Sloane.

Sloane, *loc. cit.*, p.233.

*Hab.*—Central Australia: Barrow Range.

I have examined the type of this species; it is very close to the female of *C. valgus* Lea, but, until a male from the type-locality can be procured, it is impossible to identify the two species as one.

## CUBICORRHYNCHUS VALGUS Lea.

Lea, Die Fauna Südwest-Australiens (Curculionidæ), p.221.

*Hab.*—W.A.: Bardoc, Mullewa, Ankertell, Onslow.

## CUBICORRHYNCHUS CALCARATUS Macleay.

Macleay, Trans. Ent. Soc. N. S. Wales, 1865, p.294. *C. sepidioides* MacL., *l.c.*, p.294; Lea, Deutsch. Ent. Zeitschr., 1910, p.167.

♂. Size moderately large. Clothing dense, yellowish-brown; prothorax vittate towards sides with white, and with a few white spots on disc; elytra maculate with white.

Head convex; forehead longitudinally impressed in the middle, with two small granules above; supraorbital crests prominent, acute. Rostrum shallowly concave above, lateral margin rather strongly convex in profile. Prothorax (4 × 5 mm.) strongly rounded on the sides; subapical impression conspicuous, median line impressed, with a fine carina along middle; set with small, discrete granules; sides granulate above. Elytra (9 × 6 mm.) suboval, somewhat flattened on disc; striæ moderately deep; interstices flattened basally, without evident granules in anterior

portion; granules larger and more conspicuous on the posterior portions of the third and fourth interstices, on the fourth forming a moderately strong projection on either side of the elytra; fifth, sixth, and seventh interstices with rows of smaller but evident granules, on the fifth more conspicuous near shoulder. Undersurface depressed at base; with small scattered punctures, the apical segments more coarsely punctate. Anterior coxæ contiguous; anterior tibiæ moderately strongly curved; posterior tibiæ strongly curved at apex, with a strong projecting spine on undersurface, above apex.

♀. More ovate; prothorax feebly dentate at sides, with a small tooth anterior to subapical constriction; elytra without prominent granules on the fourth interstice; anterior tibiæ very feebly curved, posterior straight, without spur. *Dimensions*: ♂. 15 × 6 mm.

*Hab.*—S.A.: Port Lincoln, Mt. Lofty, Blanchetown, Terowie, Ardrossan, Gladstone, Moonta, Port Pirie.

Mr. Lea has identified *C. sepidioides* as the female of *C. calcaratus*; Sir W. Macleay, however, gave the habitat of *C. sepidioides* as the Murrumbidgee, which suggests that it is rather a synonym of *C. maculatus*; personally, I agree with Mr. Lea's identification, as the type is much more strongly dentate than the female of *C. maculatus*; probably the locality given is wrong. I think the name *sepidioides* should be dropped, although it is unfortunate that the species was described before *C. calcaratus*, but on the same page.

The male of *C. calcaratus* may be readily recognised by the spur on the posterior tibiæ. The granules on the fourth interstice give the insect somewhat the appearance of a smaller edition of *C. Bohemani*, though, in that species, the granules are largest on the fifth interstice.

A male from Tarcoola differs from the usual type, in having the sides of the prothorax dentate anterior to the middle, as in the female; the prothorax is also more closely granulate.

Another male has the prothoracic granules almost obliterated. A third male has the posterior tibiæ less strongly curved, but with the spur distinct.

## CUBICORRHYNCHUS TAURUS Blackb.

Blackburn, Trans. R. Soc. S. Aust., 1895, p.220.

The type of this species was from Lake Callabonna, in the north-east of South Australia, but the species has a wide distribution. I have seen specimens from Victoria, New South Wales, and Queensland, as well as from South Australia. The species, however, is essentially an inland one, not having been recorded as far east as the inland slopes of the eastern tablelands.

There exists a good deal of difference between the specimens from the limits of this wide range, and, quite possibly, more than one species has been included by me under this name. All the forms, however, possess the curious hump-like thickening on the undersurface of the posterior tibiæ, which I regard as the essential feature of the species.

The Victorian and southern South Australian specimens have a more rounded prothorax than the northern forms, the granules being also less conspicuous; the elytral granules are almost absent on the inner and anterior portion of the elytra. In the specimens from Longreach, Queensland, the elytral granules are quite distinct, and the whole insect is smaller. The New South Wales specimens before me are small, and agree with Queensland examples.

*Hab.*—S.A.: Lake Callabonna, Oodnadatta, Blanchetown, Adelaide, Lucindale.—Vic.: Lillium, Dimboola.—N.S.W.: Narromine, Coolebah, Moree.—Q.: Longreach, Cunnamulla.

## CUBICORRHYNCHUS MACULATUS MacL.

Macleay, *loc. cit.*, p.295; Lea, Deutsch. Ent. Zeitschr., 1910, p.164; var. *brevipes* Lea, *l.c.*, p.165.

♂ Size moderately large. Clothing dense; on prothorax brownish, with a few small whitish spots; elytra mainly clothed with greyish squames, with interrupted darker marks along the alternate interstices; sides and legs thickly clothed with white; setæ yellowish-brown.

Head convex, slightly flattened in front, separated from rostrum by a distinct, transverse impression; forehead with two small granules above; supraocular crests conspicuous, upright, projecting forwards and upwards. Rostrum short; upper surface very feebly concave, median line not sulcate; lateral margins not raised. Prothorax ( $4 \times 5$  mm.) widely rounded on the sides, disc feebly convex from side to side; subapical constriction well-marked; median line distinctly impressed, carinate in middle; closely set with rather small, rounded granules; sides granulate above. Elytra ( $9 \times 6$  mm.) suboval, humeral angles rounded; striæ moderately deep, punctures slightly transverse; interstices with feeble granules, concealed by clothing, on the central interstices, with more distinct granules towards the sides. Undersurface depressed at base, coarsely punctate, especially on second and fifth interstices. Anterior coxæ contiguous; anterior tibiæ moderately strongly sinuate; posterior tibiæ with an antero-posterior curvature most marked in upper portion, and with an inward curvature most marked in lower portion; the undersurface of the posterior tibiæ distinctly thickened, all the tibiæ granulate beneath.

♀. Smaller than male, with narrower prothorax, with lateral margins ridged; undersurface convex; tibiæ simple. *Dimensions*: ♂,  $13 \times 6$  mm.

*Hab.*— New South Wales, Victoria, South Australia.

Type (♀) in Macleay Museum.

The above description was drawn up from a male from Mulwala (Riverina) in my own collection. With it, I group the majority of New South Wales specimens in my collection; but it is quite possible that some of these will prove worthy of specific rank. The chief variation lies in the size of the elytral granules, and in the degree of curvature of the posterior tibiæ. The variety called *brevipes* Lea, is included amongst the number, also the species frequently identified as *C. morosus* Boisd. Much more study and dissection will be necessary before the question of specific distinctness of some of the forms can be regarded as settled.

## CUBICORRHYNCHUS MACULICOLLIS Lea.

Lea, Deutsch. Ent. Zeitschr., 1910, p.163.

I have examined the type of this species, but can find no valid feature to differentiate the species from *C. maculatus*. Lea only gives differences in the clothing, which will not hold when compared with unabraded specimens of *C. maculatus*. At the same time, I am unwilling to sink Lea's species out of hand, particularly as I am not prepared to say that, under *C. maculatus*, I have not included more than one species.

## CUBICORRHYNCHUS PICEOSETOSUS Macl.

Macleay, *loc. cit.*, p.295.

The type of this species is a female, and evidently closely allied to *C. maculatus*, differing mainly in the darker setæ. I have specimens of species with dark setæ from several places in New South Wales, including Culeairn, Mudgee, Bangalore, and Quirindi. These present certain differences, *inter se*, and may possibly represent more than one species. The Quirindi specimens approach nearest to the type of *C. piceosetosus*, the principal difference being the less strongly granulate elytra. In *C. piceosetosus*, the lines of setigerous granules are more conspicuous than in any of the specimens before me. In the males of all the forms, the posterior tibiæ are more or less strongly curved much as in *C. maculatus*, and it is possible that *C. piceosetosus* should be regarded as a variety only of *C. maculatus*. Until a male from the type-locality (Yass) can be procured, I prefer to treat *C. piceosetosus* as a valid species,

## CUBICORRHYNCHUS SERRATIPES, n.sp.

♂. Size moderate. Black; densely clothed with light brown squamosity; prothorax trivittate with white, and with a few white spots; elytra albomaculate; white predominating on sides, sternal segments, and legs; setæ light.

Head convex, somewhat depressed in front, separated from rostrum by a transverse, linear impression; with a few, small, scattered granules; crests moderately strong, rather obtuse. Rostrum short and wide; upper surface moderately concave.

Scape rather slender, moderately strongly incrassate at apex. Prothorax ( $3 \times 4$  mm.) rotundate, evenly rounded on the sides; disc feebly convex, the subapical impression distinct at sides, less so in the middle; median line distinctly, but not deeply, impressed, with traces of a median carina: moderately closely set with small, discrete, rounded, nitid granules; sides granulate above. Elytra ( $8 \times 5$  mm.) suboval, humeral angles rounded, base not emarginate; disc flattened; striæ little impressed, punctures small; interstices not raised, granules small, hardly traceable in the middle, larger and more distinct towards the apex and sides. Lateral interstices without evident granules [Abdomen wanting]. Anterior coxæ contiguous: anterior tibiæ almost straight, with rather coarse granules along undersurface; intermediate tibiæ straight, granulate beneath; posterior tibiæ rather short, practically straight, coarsely granulate beneath; with a conspicuous row of nitid granules along outer edge of undersurface. *Dimensions*: ♂,  $12 \times 5$  mm.

*Hab.*—W.A.: Kookynie (C. French).

Type in Coll. Ferguson.

Although there is but a single specimen, with the abdomen missing, before me, I have described the species, as it is a thoroughly distinct one. The granules on the posterior tibiæ are larger than in any other species I know; they appear to be arranged mainly in three rows, one in the centre, one along the outer, and one along the inner edge of the undersurface: the outer row is the most conspicuous, and can best be seen when viewed from behind.

#### CUBICORRHYNCHUS SORDIDUS, n.sp.

♂. Moderately small. Black; [specimens almost completely abraded]; setæ yellowish-brown.

Head convex, slightly flattened in front; longitudinally and obliquely strigose, with a few, small granules; separated from rostrum by a transverse impression; supraorbital crests small, very little prominent. Rostrum broad, very slightly depressed in centre; upper surface with a few, obsolete, transverse ridges; lateral margins not raised. Prothorax ( $2.5 \times 3.5$  mm.) broad,

strongly rounded on the sides; subapical constriction well marked, median line impressed, subcarinate at bottom of impression; closely set with small, rounded granules; sides granulate above. Elytra ( $6 \times 4$  mm.) subobovate, strongly rounded at humeral angles, base not emarginate; striæ moderately deep, punctures small, open, indefinite, extending as transverse wrinkles across interstices; interstices feebly granulate, the granules somewhat more distinct towards the sides. Sides non-granulate. Undersurface depressed at base; ventral segments coarsely punctate. Anterior coxæ contiguous; anterior tibiæ rather feebly curved towards apex, granulate beneath; posterior tibiæ practically straight, rather stout, thickened beneath, set with moderately coarse granules.

♀. More ovate; elytra feebly granulate; undersurface strongly convex, with obsolete punctures; tibiæ not thickened beneath. *Dimensions*: ♂,  $11 \times 4$  mm.; ♀,  $10 \times 4.5$  mm.

*Hab.*—N.S.W.: Jindabyne (H. J. Carter), Bombala (H. V. Macintosh).

This species is typical of a number of forms from various parts of New South Wales. Some of these may be distinct, but I can detect no decided differences between them. Specimens from Lockyersleigh have the posterior tibiæ slightly curved; and one from Coonabarabran has decidedly larger, prothoracic granules; this specimen is probably representative of a distinct species, but I have not sufficient material to decide this point.

#### CUBICORRHYNCHUS STERILIS Pasc.

Pascoe, Journ. Linn. Soc., 1873, p.19; *C. quadraticollis* Ferg., Trans. R. Soc. S. Aust., 1915, p.79.

The type of this species, which I have recently seen, is a female in good preservation; unfortunately, however, the clothing obscures the sculpture. The prothorax is shaped as in *C. quadraticollis*, with a conspicuous indentation at the middle of the sides; the pronotum is set with very small, widely scattered granules; I believe the derm is strigose between the granules; unfortunately the clothing is too dense to see the sculpture, but the arrangement of the clothing is suggestive. It is possible,

therefore, that *C. sterilis* and *C. quadraticollis* are not really conspecific, but I have little doubt that they are so. I have never seen a specimen of *C. quadraticollis* from the type-locality (Melbourne) of *C. sterilis*, the only Cubicorrhynchus I have seen from Melbourne being *C. globicollis* Lea, which has quite a differently shaped prothorax. *C. strigicollis* Ferg., which also occurs in Victoria, is likewise close to *C. sterilis*, but has a more rounded prothorax.

*Hab.*—(*C. sterilis*), Vic.: Melbourne—(*C. quadraticollis*), S.A.: Nairne, Mt. Lofty.

CUBICORRHYNCHUS STRIGICOLLIS Ferg.

Ferguson, Trans. R. Soc. S. Aust., 1915, p.77.

*Hab.*—Victoria: Nathalia.

CUBICORRHYNCHUS SUBSTRIGOSUS Ferg.

Ferguson, *loc. cit.*, p.79.

*Hab.*—S.A.: Mt. Lofty, Coorong.

CUBICORRHYNCHUS GLOBICOLLIS Lea.

Lea, Mém. Soc. Ent. Belgique, 1910, p.84.

*Hab.*—N.S.W.: Albury.—Vic.: Melbourne, Sea Lake.

CUBICORRHYNCHUS ILLIDGEI, n.sp.

♂. Small; elongate-ovate. Black; clothing brownish; setæ long, stout, dark.

Head convex; separated from rostrum by a distinct, transverse impression; front longitudinally and obliquely, rather coarsely strigose, vertex finely and closely reticulo-punctate; with two, small granules on the forehead; supraorbital crests small, noduliform. Rostrum short; upper surface flat, obscurely rugulose, with a small granule on each side of base; external margins not raised, hardly at all convex in profile. Scape moderately robust. Prothorax ( $2 \times 2.5$  mm.) comparatively narrow, rounded on the sides, widest slightly in front of the middle, basal angles obtuse; subapical and basal impressions moderately broad, median line shallowly impressed, set with small, somewhat depressed, discrete granules, absent from transverse impressions,

and from an area internal to the lateral margins; sides with a few granules above. Elytra ( $5 \times 3.5$  mm.) gently rounded on the sides; base gently emarginate, humeral angles feebly marked. not produced; disc gently convex from side to side; seriate punctures rather large; interstices without evident granules. Undersurface subnitid, feebly depressed at base; with rather distinct punctures, coarser on the apical segment. Anterior coxæ contiguous; tibiæ straight, the undersurface feebly sinuate, each side with a row of small granules. *Dimensions*: ♂,  $8 \times 3.5$  mm.

*Hab.*—Queensland: Mt Tambourine (R. Illidge).

Described from a single male, received some years ago from Mr. Illidge of Brisbane, who has other specimens from the same locality in his collection. This species is not close to any other known to me, and may be recognised chiefly by its small size, feeble crests, prothoracic granulation, and slightly emarginate base of the elytra. The setæ are also unusually long. The type is caked with an ochreous meal, or perhaps mud, which conceals the colour of the clothing; the setæ appear light from some directions.

#### CUBICORRHYNCHUS MINOR, n.sp.

♂. Small, elliptical-ovate. Black; densely clothed with grey and brown squamosity, the grey extending as a broad patch across the prothorax, and clothing the median impression, on the elytra the colours irregularly distributed, the brown with a submetallic appearance from some directions; setæ long, stout, dark.

Head convex; separated from the rostrum by a transverse impression, towards the sides extending back and outwards along the inner sides of the supraocular crests; crests elongate, directed backwards and slightly outwards, appearing as processes of the rostrum lying back against the head. Rostrum short, hardly concave above, with two, short, oblique, little evident ridges, converging inwards to base of rostrum: external margins not raised, running back to base of supraorbital crests. Prothorax ( $1.5 \times 2$  mm.) narrow, widest slightly in front of the middle; not

strongly rounded on the sides, with a rather feeble, granular ridge towards the base; subapical constriction rather feeble; median impression only traceable in front and behind; closely set with rather large, round granules; sides granulate above. Elytra ( $5 \times 3$  mm.) suboval, elongate; base not emarginate, humeral angles rounded; disc moderately convex from side to side; striæ moderately deep, punctures small; interstices with small, setigerous granules, more evident towards the declivity and sides; lateral interstices non-granulate. Undersurface flattened, base feebly concave; punctures obscured by clothing, apparently small and separate. Anterior coxæ contiguous; anterior tibiæ feebly curved, posterior straight.

♀. Somewhat larger; undersurface very slightly convex.

*Dimensions*: ♂,  $7 \times 3$  mm.; ♀,  $8 \times 3.5$  mm.

*Hab.*—Western Australia: Ankertell (H. W. Brown).

This species is the smallest one known to me, and may readily be recognised by the peculiar, supraorbital crests, in conjunction with the non-dentate sides of the prothorax. In general habit, however, it appears closer to species like *C. spinicollis*, than to the *maculatus*-section of the genus.

I am not absolutely certain whether I am right in considering the type a male; apart from size, there seems little difference in the three specimens before me; in the one I take to be the male, the undersurface is, however, slightly more flattened than in the other two specimens.

#### CUBICORRHYNCHUS CRENICOLLIS Waterh.

G. R. Waterhouse, *loc. cit.*, p. 5.

♂. Comparatively small. Black; prothorax trivittate with grey, elytra maculate, femora with a rather conspicuous, preapical, grey ring, knees pale.

Head flattened in front, the transverse impression between head and rostrum hardly traceable; longitudinally rugosely granulate, with two small granules on the forehead; supraorbital crests moderately large, acute, upwardly projecting. Rostrum very shallowly depressed above; lateral margins not raised. Scape moderately stout, thickened at apex, rather strongly

curved backwards. Prothorax ( $2.5 \times 3.5$  mm) very feebly convex from side to side; lateral margins strongly dentate, with a deep notch about middle; median line deeply impressed in front and behind, briefly carinate in middle; disc set, moderately closely, with small, round granules; sides with a few granules above and in front. Elytra ( $6 \times 4$  mm.) gently rounded on the sides, more strongly rounded off to base: base subtruncate, humeral angles marked by a small granule; seriate punctures small, obscure; interstices set with small granules, obscured by the clothing, more evident on the declivity and towards the sides. Undersurface gently concave at base of abdomen; apical segments with moderately large punctures. Anterior coxæ contiguous; anterior tibiæ evidently, though feebly, curved; posterior tibiæ feebly curved, also feebly curved inwards.

♀. More robust and more ovate; undersurface convex; anterior tibiæ very feebly curved, posterior practically straight. *Dimensions*: ♂,  $10 \times 4$  mm.; ♀,  $13 \times 5$  mm.

*Hab.*—W.A.: Swan River, Fremantle, Dirk Hartog Islands.

CUBICORRHYNCHUS CURVIPES Ferg.

Ferguson, *loc. cit.*, p.76.

*Hab.*—W.A.: Geraldton, Perth.

CUBICORRHYNCHUS AUREOMACULATUS Ferg.

Ferguson, *loc. cit.*, p.80.

*Hab.*—W.A.: Cue, Onslow, Roebourne.

CUBICORRHYNCHUS RECTIPES Ferg.

Ferguson, *loc. cit.*, p.82.

*Hab.*—W.A.: Cue.

CUBICORRHYNCHUS SPARSUS, n.sp.

♂. Small, elongate-ovate. Black; clothing dark brown, prothorax with a basal greyish patch, elytra maculate with greyish.

Head strongly convex, hardly depressed in front; separated from rostrum by a transverse impression; closely and finely strigulose, in centre almost reticulate; supraorbital crests small, but prominent, obtuse. Rostrum slightly depressed at base; lateral margins not raised. Scape slender at base, moderately

strongly incrassate towards apex. Prothorax ( $2.5 \times 3$  mm) slightly broader than long; lateral margins with two, small, dentiform projections anterior to middle, and with a ridge of small granules extending from middle to base; base truncate, latero-basal angle well marked; subapical constriction moderately well marked; median impression distinct only in basal portion, bordered on each side at base by two, small tubercles; disc elsewhere distantly set with very small granules; sides with a few granules above. Elytra ( $6 \times 4$  mm.) obovate, broadest rather anterior to middle; base not emarginate, humeral angles rounded; disc rather strongly convex from side to side; seriate punctures small, the striæ moderately deep; interstices set with small granules, more distinct towards sides; lateral interstices not granulate. Undersurface subnitid, with scattered punctures at base, these coarser and closer together on the apical segment. Anterior coxæ contiguous; anterior tibiæ feebly curved, intermediate and posterior tibiæ practically straight.

♀. More ovate; prothorax with lateral, dentiform projections hardly traceable; elytra broader. *Dimensions*: ♂,  $9 \times 4$  mm.; ♀,  $11 \times 5.5$  mm.

*Hab.*—W.A.: Darling Ranges (A. M. Lea).

Type in Coll. Ferguson.

I think I am right in sexing the specimens before me; there are four, two small and two larger; but, apart from the larger size, the only difference in the presumed females is the broader elytra. In all, the undersurface appears to be feebly convex at the base; this is usually a female character, but I am certain that the type is a male, as the abdomen is protruded sufficiently to enable the two, apical, dorsal tergites to be seen.

The species is readily distinguished from all the other described species with dentate sides, by the sparseness and fineness of the prothoracic granules.

#### CUBICORRHYNCHUS SETOSUS, n.sp.

♂. Small, elongate, subparallel. Clothing dense, brownish, on elytra indistinctly maculate with greyish, rostrum and legs clothed with grey; setæ long, light-coloured.

Head convex, slightly concave between the crests, with two, small granules on forehead; supraorbital crests comparatively large, upstanding. Rostrum short, wide; upper surface gently concave. Scape rather robust. Prothorax ( $2 \times 3$  mm.) dentate at sides, with two, moderately large, conical projections anterior to middle, and a row of smaller, conical granules, about four in number, posterior to middle; a small, conical granule also present in front of subapical constriction; disc with median line shallowly, but distinctly, impressed, elsewhere closely set with rather large, upright granules, each bearing a long seta; sides granulate above. Elytra ( $7 \times 4$  mm.) subparallel on the sides; base not emarginate, humeral angles rounded; striæ moderately deeply impressed, punctures small, indistinct; interstices each with a single row of small granules, more distinct posteriorly and laterally; sides with interstices non-granulate. Undersurface gently concave at base; with scattered, setigerous punctures, rather coarser on the apical segment. Anterior coxæ contiguous, anterior tibiæ feebly curved, posterior feebly curved, also very feebly curved inwards; all the tibiæ clothed with long, setose hair, most noticeable on the undersurface, the posterior with a few, fine granules traceable among the setæ.

♀. More ovate; undersurface more convex, posterior tibiæ practically straight. *Dimensions*: ♂,  $10 \times 4$  mm.; ♀,  $11 \times 5$  mm.

*Hab.*—North-west Australia, Onslow.

Type in Coll. Ferguson.

Closely allied to *C. spintcollis*, but a larger species, with larger, almost conical granules on the prothorax, and longer setæ, particularly on the prothorax.

The type is possibly immature, as it is of a decidedly reddish colour, other specimens being black. The Onslow specimens differ slightly in the prothorax, and the elytral granules are slightly more evident; I do not think, however, that they are distinct.

#### CUBICORRHYNCHUS MUSSONI Blackb.

Blackburn, Proc. Linn. Soc. N. S. Wales, 1892, p.124.

This species is very distinct from all other described Cubicorrhynchi with the exception of the following, *C. auriculatus*.

From that species, it differs in the more rounded sides of the prothorax, and in the more obliterate granules, on both prothorax and elytra. The sides of the prothorax, though appearing evenly rounded from above, have the basal half distinctly ridged, this ridge being conspicuous only when viewed from the side. In both species, the supraorbital crests differ considerably from the usual form: instead of projecting more or less forwards from the plane of the head, they project upwards and somewhat outwards, the inner surfaces looking almost directly forwards. I have not, however, thought it necessary to separate these two species generically from *Cubicorhynchus*. I have specimens of *C. Mussoni* from Walcha and Muswellbrook; these have been compared with specimens from the type-locality (Tamworth) in the Macleay Museum. More recently, I have had an opportunity of inspecting the type in the British Museum, and am able to confirm the identification.

CUBICORHYNCHUS AURICULATUS, n.sp.

♂. Moderately small; elongate-ovate. Black; clothed with muddy-brown squames, feebly emarginate with grey: setae.

Head convex, separated from rostrum by a transverse impression: forehead with two, small granules; supraorbital crests elongate, the apices directed upwards and outwards, the inner surfaces looking forwards as well as inwards. Rostrum with upper surface slightly depressed; median line carinate, two oblique, almost obsolete, internal ridges traceable; lateral margins not raised, slightly depressed at base of crests, somewhat divergent at base. Prothorax ( $2.5 \times 3.5$  mm.) feebly convex on disc, with a marked, subapical, transverse impression; median line impressed in basal half; lateral margins with a rather distinct notch about middle, this continued across disc as an indistinct impression, obtusely bidentate in front of notch, and with a row of granules behind notch, running backwards and inwards to latero-basal angle, which is marked and rectangular; disc closely set with large, round granules, with two, rather large, backwardly directed tubercles overhanging the base, in the middle; sides with rather coarse granules above, becoming

finer below and reaching almost to coxæ. Elytra ( $6 \times 4.5$  mm.) subparallel on sides, shoulders rounded; base, from certain directions, appearing very feebly emarginate; striæ shallow. punctures small, open, rather indefinite; interstices with small granules, the third and fifth slightly more elevated, with somewhat larger granules; lateral interstices non-granulate. Undersurface somewhat depressed at base; with large punctures separated by narrow ridges, forming an irregular reticulum, these punctures most marked on second and apical portion of first segment, obsolescent on metasternum. Anterior coxæ contiguous; anterior tibiæ feebly curved, posterior feebly incurved.

♀. More ovate; undersurface convex, with fewer and smaller punctures, not reticulate. *Dimensions*: ♂,  $10 \times 4.5$  mm.; ♀,  $10 \times 5$  mm.

*Hab.*—S. Queensland: Dalveen, Darling Downs, Dalby, Daandine, Maryland, Stanthorpe.—N.S.W.: Tenterfield.

The only species known to me at all similar to the above, is the species I have identified as *C. Mussoni* Blackb.; from that species, the present one differs in the coarser, prothoracic granules, and in the different ventral punctures.

The head, with its outwardly and upwardly directed crests, is reminiscent of *Notonophes*, but the structure of the prothorax clearly shows the affinity of *C. auriculatus* to the *Cubicorrhynchus-Acantholophus* complex. The basal transverse impression or guttering is concealed from above, but can be seen from the side; when viewed from the side, the posterior portion of the lateral margin is seen to bend downwards to the latero-basal angle.

It is possible that *C. auriculatus* and *C. Mussoni* should be separated from *Cubicorrhynchus*, but I do not think that they can be referred to *Acantholophus*.

#### CUBICORRHYNCHUS SPINICOLLIS MacL.

Macleay, *op. cit.*, 1866, p.332.

♂. Small, elongate. Clothing dense, brownish; rostrum and median line of prothorax, anteriorly and posteriorly, clothed

with white; elytra variegate with grey; undersurface with a broad, white vitta along each side; setæ short, dark.

Head convex, separated from rostrum by a transverse impression in front, curving backwards along inner side of supraorbital crests; forehead with two, small granules; crests prominent, directed upwards with a slight inclination outwards. Rostrum not excavate, lateral margins not raised, median line slightly depressed, base with feeble indications of two oblique ridges. Scape moderately robust. Prothorax ( $2.5 \times 3$  mm.) with a strong dentiform tubercle or spine about middle, a slightly smaller one more anteriorly, and a small spine anterior to subapical constriction; lateral margins, from middle to base, formed by a strongly granulate ridge, sloping inwards to base; disc with median line impressed anteriorly and posteriorly, sometimes carinate in middle portion; set with small, upright granules, absent from anterior and posterior portions of the disc, also with two, small tubercles on each side of median line at base; sides with a few granules above. Elytra ( $5 \times 3.5$  mm.) suboval, strongly rounded to base, humeral angle with a small granule; disc striate-punctate, punctures small, each set with a small seta; interstices with small granules obscured by clothing, more evident posteriorly and laterally. Undersurface rather feebly concave at base, set with rather small punctures, obscured by clothing. Anterior coxæ contiguous; tibiæ feebly curved, almost straight.

♀. More ovate; undersurface convex. *Dimensions*: ♂,  $9 \times 3.5$ , ♀,  $9 \times 4$  mm.

*Hab.*—W.A.: King George Sound, Kellerberrin.

Closely allied to *C. aurigena* and *C. setosus*, from the latter of which it may readily be distinguished by its smaller size, and smaller, prothoracic granules. The differences between *C. spinicollis* and *C. aurigena* are noted under the latter species.

Some doubt has been cast on the assignment of this species to *Cubicorrhynchus*. In general appearance, the species is strongly suggestive of a small *Acantholophus*, but the structure of the rostrum is essentially that of a *Cubicorrhynchus*, and it is united to the typical forms of the genus by intermediate species.

## CUBICORRHYNCHUS AURIGENA Blackb

*Hyborrhynchus aurigena* Blackburn, Trans. R. Soc. S. Aust., 1899, p.89.

Though referred by the author to *Hyborrhynchus*, this species is certainly a *Cubicorrhynchus*, and allied to *C. spinicollis*. From that species, it differs in being somewhat larger, with more parallel-sided elytra. The internal, oblique ridges on the rostrum are more evident, and the supraorbital crests are larger and more outwardly directed. The prothorax is rather broader, with the lateral spines slightly larger.

My only specimen is a female, which I received from Mr. H. W. Brown; a second specimen was sent to the British Museum, and determined as this species by comparison with Blackburn's type.

A recent visit to the British Museum has enabled me to examine the type of *C. aurigena*; it is probably a male, but the abdomen is displaced; it differs from the specimen I have commented on above in having the supraocular crests smaller; in other respects, it agrees well, and I think the two specimens are conspecific.

*Hab.*—W.A.: Kalgoorlie, Cue, Beverley.